AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1 (currently amended). An oligonucleotide synthesizer comprising a reaction chamber and a lid, wherein in an open position, said lid provides a substantially enclosed ventilated workspace, wherein in said open position said ventilated workspace is of sufficient size to permit an operator's hands to enter said reaction chamber.

2-4 (canceled).

5 (original). A system comprising a plurality of oligonucleotide synthesizers of Claim 1.

6 (original). The system of Claim 5, wherein said system comprises 100 or more of said synthesizers.

7 - 19 (canceled).

20 (currently amended). A system comprising;

- a) a ventilation tube, and
- b) a lid enclosure on a nucleic acid synthesizer comprising; a) a top cover with a ventilation slot, and b) a top enclosure comprising a top plate with a ventilation opening, wherein said top enclosure is attached to said top cover to form a primarily enclosed space over said top cover, and
- c) a vacuum source.

21 (canceled).

- 22 (original). The system of Claim 20, wherein said vacuum source comprises a centralized vacuum system.
- 23 (canceled).
- 24 (new). The oligonucleotide synthesizer of Claim 1, wherein said reaction chamber comprises a cartridge configured to hold a plurality of nucleic acid synthesis columns.